Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application.

1. (Currently amended) An isolated or purified nucleic acid molecule comprising a nucleotide sequence which codes for a pyruvate carboxylase enzyme ~~of SEQ ID NO:19~~, wherein said pyruvate carboxylase enzyme contains at least one mutation in SEQ ID NO: 19, which desensitizes said pyruvate carboxylase enzyme to feedback inhibition by aspartic acid selected from the group consisting of:

a) methionine at position 1 is replaced with a valine,

b) glutamic acid at position 153 is replaced with an aspartic acid,

c) alanine at position 182 is replaced with a serine,

d) alanine at position 206 is replaced with a serine,

e) histidine at position 227 is replaced with an arginine,

f) alanine at position 452 is replaced with a glycine, and

g) aspartic acid at position 1120 is replaced with a glutamic acid.

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2. (Currently amended) An isolated or purified nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

a) the nucleotide sequence encoding amino acids 1 to 1157 of SEQ ID NO:2;

~~b) the nucleotide sequence encoding amino acids 1 to 1140 of SEQ ID NO:4;~~

b) [[c)]]a nucleotide sequence encoding the amino acid sequence encoded by the

DNA contained in Deposit Number NRRL B-30293; and

c) [[d)]]a nucleotide sequence completely complementary to any of the nucleotide sequences in (a), (b) or (c).

3. (Previously presented) The nucleic acid molecule of claim 2, comprising the nucleotide sequence of SEQ ID NO:1.

Claim 4 is cancelled

5. (Previously presented) A vector comprising:

a) the nucleic acid molecule of claim 1 or 2; and

b) at least one marker gene.

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6. (Previously presented) The vector of claim 5, further comprising a functional *Corynebacterium* replication origin.

7. (Previously presented) A method for producing a host cell comprising introducing the vector of claim 5 into a host cell.

8. (Previously presented) A host cell comprising the vector of claim 5.

9. (Withdrawn) A method of producing an amino acid, comprising:

a) culturing the host cell of claim 8, in a suitable media; and

b) separating said amino acid from said medium.

10. (Withdrawn) The method of claim 9, wherein said amino acid is selected from the group consisting of: L-lysine, L-threonine, L-methionine, L-isoleucine, L-glutamic acid, L-arginine and L-proline.

11. (Withdrawn) The method of claim 10, wherein said amino acid is L-lysine.

12. (Previously presented) A method for replacement of a wild-type pyruvate carboxylase gene, with a feedback resistant pyruvate carboxylase gene, in a *Corynebacterium glutamicum* host cell comprising the steps of:

a) replacing a genomic copy of said wild-type pyruvate carboxylase gene with a selectable marker gene through homologous recombination to form a first recombinant strain; and

b) replacing said selectable marker gene of step (a) in said first recombinant strain, with said feedback resistant pyruvate carboxylase gene through homologous recombination to form a second recombinant strain;

wherein said homologous recombination in steps (a) and (b) occurs between said host cell and the vector of claim 5.

13. (Previously presented) A host cell produced by the method of claim 12.

14. (Withdrawn) A method of producing an amino acid, comprising:

a) culturing the host cell of claim 13 in a suitable medium; and

b) separating said amino acid from said medium.

15. (Withdrawn) The method of claim 14, wherein said amino acid is selected from the group consisting of: L-lysine, L-threonine, L-methionine, L-isoleucine, L-glutamic acid, L-arginine and L-proline.

16. (Withdrawn) The method of claim 15, wherein said amino acid is L-lysine.

17. (Withdrawn) An isolated or purified polypeptide comprising the amino acid sequence of the polypeptide encoded by the DNA plasmid encoding pyruvate carboxylase contained in Deposit Number NRRL B-11474, the amino acid sequence of SEQ ID NO:2 or the amino acid sequence of SEQ ID NO:4.

18. (Withdrawn) An isolated or purified polypeptide comprising an amino acid sequence selected from the group consisting of: SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16 and SEQ ID NO:18.

19. (Currently amended) An isolated or purified nucleic acid molecule comprising a nucleotide sequence encoding ~~the polypeptide of claim 18~~ a polypeptide comprising an

amino acid sequence selected from the group consisting of: SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16 and SEQ ID NO:18.

20. (Previously presented) The nucleic acid molecule of claim 19, wherein said nucleic acid molecule comprises a nucleotide sequence selected from the group consisting of: SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15 and SEQ ID NO:17.

Please add the following claims 21 to 23:

21. (New) An isolated nucleic acid molecule comprising a polynucleotide which codes for a pyruvate carboxylase enzyme, wherein said pyruvate carboxylase enzyme contains at least one mutation which desensitizes said pyruvate carboxylase enzyme to feedback inhibition by aspartic acid, and which nucleic acid molecule hybridizes under stringent hybridization conditions to a second nucleic acid molecule comprising at least one mutation in SEQ ID NO: 19, selected from the group consisting of:

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h) methionine at position 1 is replaced with a valine,

i) glutamic acid at position 153 is replaced with an aspartic acid,

j) alanine at position 182 is replaced with a serine,

k) alanine at position 206 is replaced with a serine,

l) histidine at position 227 is replaced with an arginine,

m) alanine at position 452 is replaced with a glycine, and

n) aspartic acid at position 1120 is replaced with a glutamic acid.

22. (New) An isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a nucleic acid molecule comprising a nucleotide sequence selected from the group consisting of:

a) the nucleotide sequence encoding amino acids 1 to 1157 of SEQ ID NO:2; and

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b) a nucleotide sequence encoding the amino acid sequence encoded by the DNA contained in Deposit Number NRRL B-30293.

23. (New) An isolated nucleic acid molecule comprising a polynucleotide which is completely complementary to the isolated nucleic acid molecule of claim 21 or 22.